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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/560,376	12/12/2005	Dieter Bechtold	054821-8025	9083

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EXAMINER	
SCULLY, STEVEN M	

ART UNIT	PAPER NUMBER
1795	

MAIL DATE	DELIVERY MODE
05/29/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/560,376	BECHTOLD ET AL.	
	Examiner	Art Unit	
	Steven Scully	1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02 March 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-15 and 20-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15 and 20-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

BATTERY HAVING SEALED CONTACT TERMINAL BUSHING

Examiner: Scully S.N.: 10/560,376 Art Unit: 1795 May 20, 2009

DETAILED ACTION

1. The Amendment/Remarks filed March 2, 2009 have been entered. Claims 1-15 and 20-24 remain pending in the application and claims 14-15 have been amended.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 112

3. The claim rejections of claims 14 and 15 under 35 U.S.C. 112, second paragraph, have been withdrawn because the claims have been amended.

Claim Rejections - 35 USC § 103

4. Claims 1-15 and 20-24 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Ovshinsky et al. (US5,558,950) in view of Schäfer (GB2,026,761) and Walsh et al. (US2002/0070215).

With respect to claim 1, Ovshinsky et al. disclose a metal hydride battery having a plastic housing comprising a plastic case and a plastic top. See Table 2. Ovshinsky et al. further recognize that plastic cases are extensively used in lead acid battery technology and has been easily adapted for other batteries such as NiMH hydride

electric vehicle batteries. See column 3, lines 27-33. The battery would obviously have a terminal for the electrodes. See Figure 1.

Ovshinsky et al. do not disclose a plastic sealing element on the contact element. Schäfer discloses a battery having a terminal post (1) provided on the shank with parallel, peripheral ribs (4), and these ribs engage in complementary grooves in portion (5) moulded around it. The ribs (4) provide both firm, positive engagement with the plastics portion (5) on the terminal post (1), and a very long surface leakage path for the electrolyte, which ensures both fluid-tightness and mechanical strength. See page 1, lines 51-58. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a plastic sealing element because Schäfer teaches it to ensure both fluid-tightness and mechanical strength. The plastic sealing element would be within the lid of the battery which lies flat against the housing wall at an interface.

Ovshinsky et al. in view of Schäfer do not disclose a battery wherein one of the support surface and the housing wall is at least partially transparent for a laser beam and the other is absorbent for the laser beam. However, it is well known to laser weld battery casings. Walsh et al. disclose a container where portions of the container are laser welded. One of the layers is at least somewhat translucent while the other one is opaque, most often by adding carbon black to the thermoplastic material. The two layers are pressed together, whereby the surfaces to be joined are illuminated with a laser. The illumination is performed from the translucent side. The energy from the laser beam will be transformed into thermal energy when it hits the opaque layer, whereby it melts and the parts are joined by welding. See [0058]. It would have been

obvious to one of ordinary skill in the art at the time of the invention to use a translucent and an opaque layer in laser welding because Walsh et al. teaches it to allow the process to occur.

Further, with respect to independent claim 20, Ovshinsky et al. disclose a battery casing having a container (the lower and side portions) having an aperture in the upper portion where the lid is provided. See Figure 1.

With respect to claims 2-3, 8-10 and 21, as discussed above, Schäfer discloses a terminal having ribs for interlocking with the plastic seal for fluid-tightness and mechanical strength. It would have been obvious to provide this structure to the battery of Ovshinsky et al. for fluid-tightness and mechanical strength.

With respect to claims 4 and 22, Ovshinsky et al. disclose a plurality of cells in the battery linked by the terminal connector. See Figure 1.

With respect to claims 5-6 and 23-24, as discussed above, Walsh et al. disclose laser welding uses one translucent layer and one opaque layer. It would have been obvious to one having ordinary skill in the art at the time of the invention to have the housing be translucent while the lid was opaque or vice versa, since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ 70.

With respect to claim 7, Walsh et al. disclose that the two layers are pressed together during laser welding. See [0058] of Walsh et al. Therefore, a weld bead would form.

With respect to claims 12-13, Walsh et al. disclose adding carbon black to improve light absorption, which is also interpreted as a colored layer. See [0058]. It would have been obvious to one of ordinary skill in the art at the time of the invention to add carbon black to the plastic casing of Ovshinsky et al. because Walsh et al. teaches it assists in forming an opaque layer.

With respect to claims 14-15, Schäfer discloses the plastic sealing member to have ribs for fluid-tightness and mechanical strength. The structure is clamped together in a liquid-tight manner to prevent the electrolyte from leaking out of the system. See page 1, lines 51-58 of Schäfer. It would have been obvious to one of ordinary skill in the art to have ribs on the plastic sealing member and a liquid-tight structure because Schäfer teaches preventing the electrolyte from leaking by ensuring both fluid-tightness and mechanical strength.

Response to Arguments

5. Applicant's arguments filed March 2, 2009 have been fully considered but they are not persuasive. Applicant argues:

a) Walsh represents non-analogous art and cannot be used to form a prima facie case of obviousness.

The Examiner respectfully disagrees. The purpose of the Walsh reference is not to show laser welding of a battery particularly, but to show laser welding of a plastic container. It is well known to laser weld battery cases. It is the position of the Examiner that it would have been obvious to use a translucent and an opaque layer in laser

welding as taught by Walsh et al. in any plastic container in order to join separate portions of the container. And, while leakage of the electrolyte is an issue with regard to a weld, it is unclear how the technique of Walsh et al. would not be adequate in sealing of an interface. In fact, it seems that the technique would provide a larger surface area of interfacial welding, thus providing an improved seal opposed to laser welding along the edge of the interface only.

Conclusion

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact/Correspondence Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Scully whose telephone number is (571)270-5267. The examiner can normally be reached on Monday to Friday 7:30am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dah-Wei Yuan can be reached on (571)272-1295. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. S./
Examiner, Art Unit 1795